

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

Series and Series Number:

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MATERIALS RELEASE NO. 1260a

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

ISSUE DATE: May 28, 1997

REVIEW DATE: May 28, 2000

SUBJECT: 1. Product APP (Atactic Polypropylene), SBS (Styrene-Butadiene-Styrene) and MB Base Sheet (Fiberglass Saturated Asphalt) roofing membranes
2. Name and Address of Manufacturer Firestone Building Products Company, Inc.
525 Congressional Blvd.
Carmel, IN 46032

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: APP membranes are designed specifically as torch weld membranes to be used as a fully adhered base or cap membrane in single or multi-ply roof system configurations. SBS membranes are designed to be applied with either hot asphalt or Matrix SB cold adhesive as a fully adhered cap membrane in two or three-ply roof systems. Both the APP and SBS membranes may be used as flashing for their respective systems.

DESCRIPTION;

MB BASE SHEET:

The MB base sheet is a fiberglass reinforced mat saturated with roofing grade asphalt that is without fillers, in compliance with ASTM D4601, Type II. This product may be attached to an acceptable roofing substrate with either Firestone insulation plates and fasteners or with a minimum 25# mopping of Type III or Type IV Asphalt. MB Base Sheets may be used as a base ply under either torch-applied APP or mop-applied SBS modified bitumen membranes. The roll width is 36 inches, the roll length is 108 feet and the roll covers a 324 square feet area (3 squares).

APP MEMBRANES:

The Atactic Polypropylene (APP) membrane is a blend of Atactic Polypropylene and asphalt, reinforced with a non-woven polyester mat. The APP 160 and APP 170 membranes are smooth surfaced, torch-applied modified bitumen membranes. The APP 180 product is a granule surface torch-applied modified bitumen. The APP membranes range from 130 mils to 180 mils (at the seams edge), and range in weight from 0.8 lbs. to 1.1 lbs. per square foot. The membrane roll lengths range from 32'-10" to 33'-6".

SBS BASE SHEET:

The Styrene-Butadiene-Styrene (SBS) base membrane consists of a fiberglass reinforcement, encased in a SBS rubber modified asphalt compound, and coated with fine mineral surfacing. This product is for use with all Firestone SBS glass modified bitumen membranes. The base sheet may be fastened in place with Firestone specified fasteners, or fully adhered with a minimum of 25 lbs. per square foot mopping of Type IV asphalt. This roll covers 1-1/2 squares.

SBS MEMBRANES:

The Styrene-Butadiene-Styrene (SBS) members are a blend of asphalt and SBS, reinforced with either a heavy fiberglass mat, or a non-woven polyester mat. Both reinforcement types are available as standard or fire-retardant (FR) formulations which have a granular surface and are mop-applied. These SBS membranes range in thickness from 100 mils to 170 mils (at the seam edge) and have weights in the range of 0.77 lbs. to 1.11 lbs. per square foot. Roll lengths are 33'-10". Firestone SBS membranes are available in a wide variety of granular colors, including white and black.

MATERIALS:

All roofing systems materials shall be those specified by Firestone, and shall be supplied by Firestone or a Firestone licensed roofing applicator. Any non-Firestone materials supplied by an applicator must be accepted in writing by Firestone. Data on physical properties of the membranes referenced in this document, such as tensile strength, elongation, low temperature flexibility, etc. are on file at HUD Headquarters, and may be obtained from Firestone Technical Services.

Asphalt Products:

Steep Asphalt shall be suitable for the roof slope and temperature. All asphalt shall meet ASTM D312 requirements.

Asphalt primer shall meet ASTM D41.

Insulation

Firestone recommends specific types and minimum thicknesses of Firestone insulation for use as substrate for the modified systems. See chart below:

Firestone	Minimum Insulation	MB Base Thickness	Overlayment	Attachment
			SBS Base Sheet	Overlay Board
ISO 95+ Rhoflex ISO	1.0"	Mechani- cally Attached or Hot Mopped	Mechani- cally Attached or Hot Mopped	Mechani- cally Attached or Hot Mopped
Fiber Top Wood Fiber Board	1/2"	Mechani- cally Attached or Hot Mopped	Mechani- cally Attached or Hot Mopped	Mechani- cally Attached or Hot Mopped
Extruded Polystyrene	1/2"	N/A for application	N/A for application	Mechani- cally Attached

If Firestone insulation is not used, consult Firestone Technical Services for the most current information regarding the acceptability of insulation other than Firestone. Insulation shall meet current Federal or ASTM specifications, as applicable. Attachment of Insulation with Asphalt.

NOTE: Roofing asphalt is not supplied by Firestone, therefore the performance of asphalt used to attach roof insulation is not included in the Firestone Warranty. If this method of attachment is selected by the project designer, the following requirements must be met:

- a. Proposed insulation shall be compatible with the roof substrate, the proposed bitumen, and the requirements of the Firestone APP and SBS Systems;
- b. Steep asphalt ASTM D312 Type III or IV shall be utilized; and,
- c. Expanded or extruded polystyrene insulation shall not be attached with hot asphalt.

NOTE: Sprayed in-place Urethane:

Sprayed in-place urethane roofs are not acceptable substrates for Firestone APP or SBS Systems. Sprayed in-place urethane must be removed prior to installation of the Firestone APP or SBS Systems.

WIND AND FIRE CLASSIFICATION:

1. Mechanically fastened roofing systems shall be designed to resist wind uplift forces as determined in the Wind Design Guide for Mechanically Fastened Single-Ply Roofing Systems, published by the Single Ply Roofing Institute (SPRI).
2. Ballasted roofing shall be in accordance with Underwriters Laboratories (UL) or Factory Mutual Engineering Corporation (FM) construction details. To qualify for fire rating and uplift resistance, the system shall be in the current UL or FM listing.
3. Roofing systems shall be designed to, and shall resist design wind forces specified by ASCE 7-88. Fire classification shall meet the HUD Minimum Property Standards (MPS). The roof construction shall be in accordance with Underwriters' Laboratories (UL) or Factory Mutual Engineering Corporation (FM) classification. Roofing systems qualified for Fire Classification with coatings shall be inspected every year to assure the condition of the coating is satisfactory. The coating shall be reapplied, as required, to maintain the Fire Classification.

INSTALLATION:

1. The Firestone APP and SBS Systems shall be installed by a Firestone Registered/Licensed Applicator.
2. The Firestone APP and SBS Systems shall be inspected by a Firestone Technical Representative, when completed.

3. Consultation:

- a. Firestone Technical Services Department is available for consultation, with respect to all deviations from current Firestone Roofing Systems Specifications and Details.
- b. No deviation from the Firestone specifications and standards shall be allowed without first obtaining written approval from Firestone Technical Services Department.

4. Roof substrate preparation-correct substrate defects:

- a. Bring defects to the attention of the general contractor, in writing, to be corrected before work commences.
- b. If a general contractor is not involved, the Firestone Applicator shall be responsible for correcting improper conditions affecting the roofing installation.

5. Special deck preparation-Firestone Special Deck Preparation Specifications shall be followed when installing an insulation layer, or base sheet directly to the specified substrate.

6. Membrane installation, including placement, lap splice bonding procedure, perimeter attachment, flashing, walkways and related work to provide watertight roofing systems shall comply with the appropriate Firestone Roofing Systems Specifications and Details.

INSPECTION AND WARRANTY:

A designated representative of Firestone shall make inspections of the installation at the following intervals:

1. Prior to delivery of materials, to accept or reject the roof deck to which the roofing system is to be applied.
2. During the installation, to inspect and approve the installation techniques and methods.
3. Upon completion, to give final acceptance to the roofing system installation.

Roof drawings shall be submitted to an authorized Firestone representative by the registered or licensed applicator prior to the initial inspection. Roof drawings must include:

1. The roof outline, measurements and total square footage;
2. Location, type, and details of penetrations; and,
3. Perimeter and other special details.

All roofs installed under the jurisdiction of this Materials Release (MR) on HUD-controlled properties shall be warranted for ten years. Firestone Building Products Company shall provide the owner with a ten-year warranty for the roofing products covered by this MR.

SEE ATTACHED SAMPLE 10-YEAR WARRANTY

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a

renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fees shall be sent to:

U.S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P.O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of this MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.
